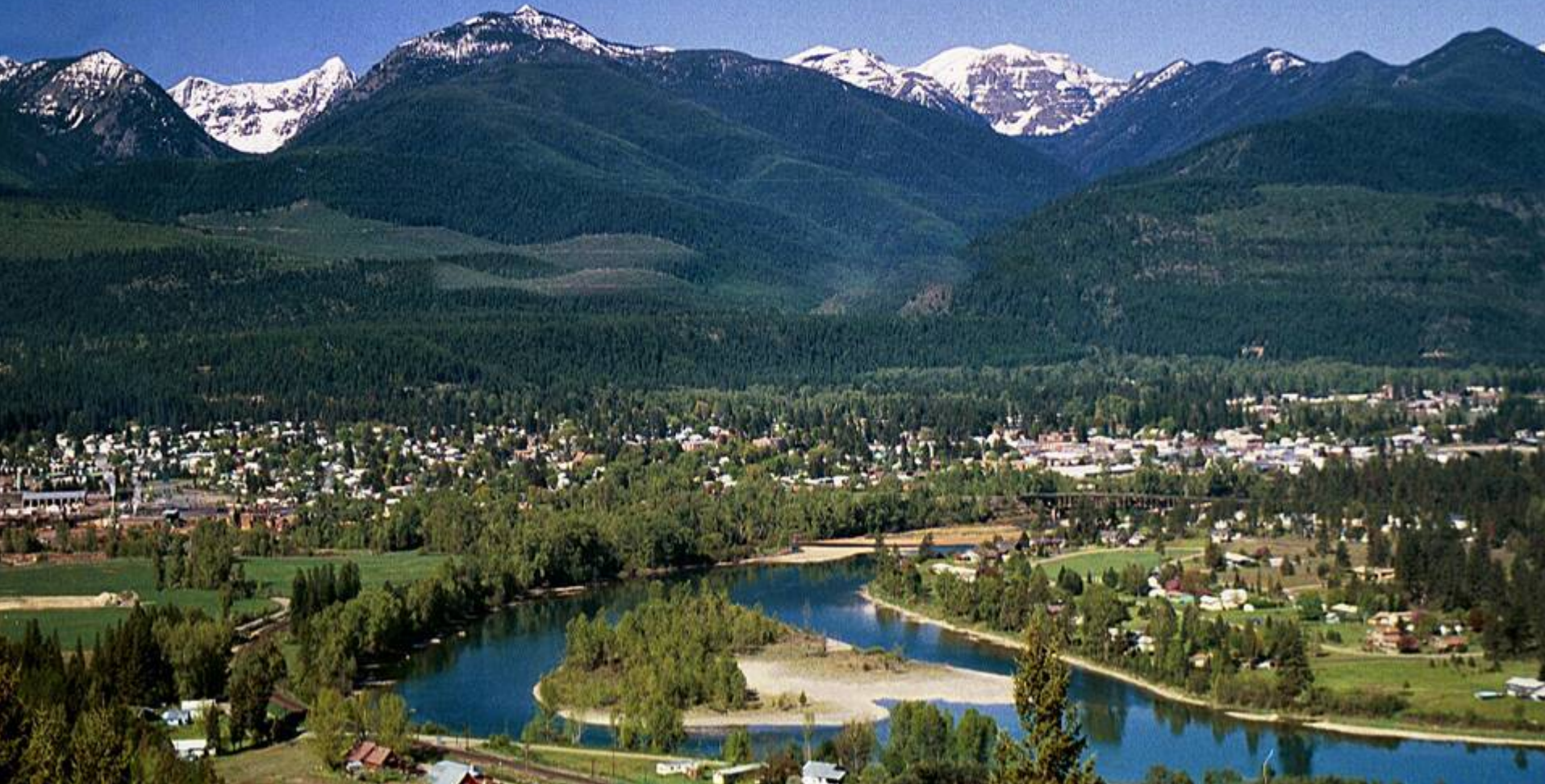


# Woodstove Changeout Program

Libby, Montana

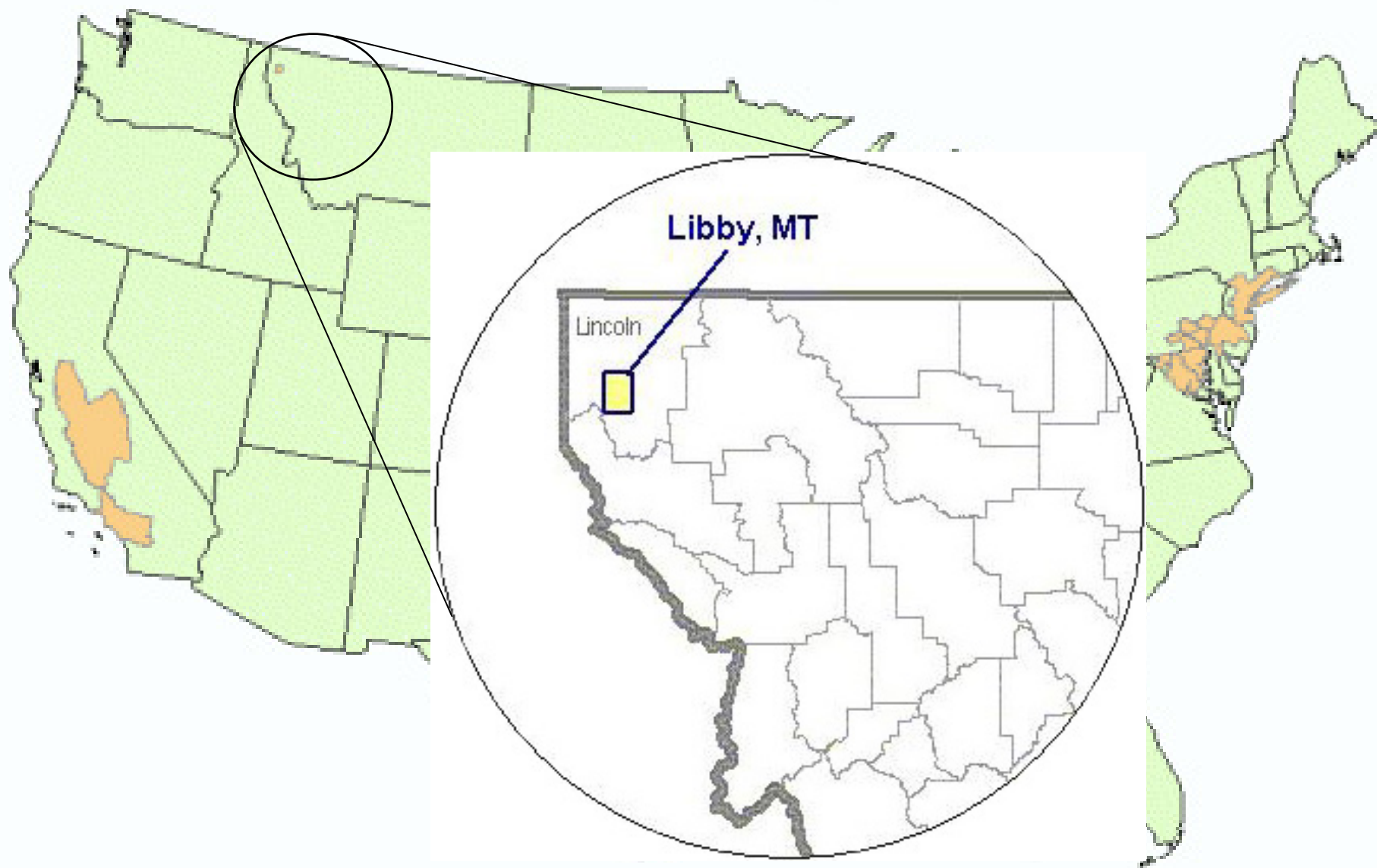
2005 – 2007



Early in 2005, the EPA, HPBA, Montana Department of Environmental Quality and Lincoln County recognized the need and the opportunity to provide the community of Libby, Montana with the means to identify and correct the environmental and health concerns related to the community's status of non-attainment of the EPA PM<sub>2.5</sub> standards. The following presentation outlines our program to assist the community.







# THE PROBLEM AND CHALLENGES

---

- Topography
- Economy
- Air Quality History
- Abundance of Wood/Forest Access
- Impaired Respiratory Population
- Outreach



# THE PROGRAM AND SOLUTIONS

---

Address three goals:

1. Reduce PM<sub>2.5</sub> emissions
2. Assist health of community citizens
3. Provide a model for woodstove changeout programs

# Lincoln County implemented the program in three phases:

- Phase 1:** Changeout of wood heating appliances in low-income households (2005-2007), with approximately 300 units to be replaced by April 2007.
- Phase 2:** Changeout of appliances in remaining households and businesses (2006-2007), with approximately 800 units to be replaced in the target area. A stove rebuild/catalytic unit replacement program is included to rebuild or refit up to 100 existing certified stoves that are still useable, but are not operating properly due to their condition.
- Phase 3:** Gather data on the air quality effects of the program through continued monitoring and data analysis and prepare a final report. Promote proper stove use through education, in order to maximize effectiveness of woodstove changeout program.

# THE PROGRAM

---

## Phase 3

- ✓ Objective
- ✓ Program Outline:
  - Air Sampling
  - Budget Administration
  - Final Report
  - Community Education



### Phase 1 - Operating Budget

Salary and Fringe – Program Coordinator	\$55,820
Office Supplies	\$1,500
Operating Expenses	\$4,000
Utility Service	\$3,000
Travel	\$3,500
Purchased Services	\$244,704
Total	\$312,524

### Phase 2 - Operating Budget

Salary and Fringe – Program Coordinator	\$50,000
Supplies, Utility Service	\$2,950
Travel	\$3,000
Purchased Services	
Vouchers – 800 changeouts	\$916,000
Certified Stove Rebuild Program – 100 stoves	\$33,250
Total	\$1,005,200

## PROGRAM FUNDING

Source	2005				2006-2007	TOTAL
<b>PHASE I</b>						
	June 1	July 1	August 1	Sept 1		
HPBA	\$ 25,000	\$ 40,000	\$ 60,000		\$ 48,543	\$ 173,543
EPA C.A. GRANT				\$100,000		\$ 100,000
MT DEQ	\$ 5,820	\$ 50,000				\$ 55,820
LINCOLN COUNTY	In-Kind, Ongoing					\$ 144,700
EPA 105 \$	Prior Commitments for Monitoring Equipment					\$ 99,210
HPBA DONATED STOVES, EQUIPMENT, INSTALLATIONS						\$ 450,000
<b>PHASE I (Low Income Changeout) TOTAL</b>						<b>\$1,023,273</b>
<b>PHASE II</b>						
EPA GRANT (Congressional Appropriation)					\$ 985,200	\$ 985,200
Homeowner Share						TBD
MT DEQ					\$ 50,000	\$ 50,000
<b>PHASE II TOTAL</b>						\$1,035,200
<b>PROGRAM TOTAL</b>						<b>\$2,058,473</b>

# THE OUTCOME

---

- Overall success will be determined by the reduction in  $\text{PM}_{2.5}$  emissions in the Libby non-attainment area
- Provides a useable template for other changeout programs
- Provides a cost-benefit ratio for changeout program planning
- Woodstove changeout, local air control regulation, and the anticipated  $\text{PM}_{2.5}$  emission reduction will be the king pin in the Libby  $\text{PM}_{2.5}$  SIP.

# Program summation as of February 25, 2007

Phase 1:      247    Changeout installations completed

Phase 2:      759    Changeout installations completed

69    Stove rebuilds

7    Wood heat surrendered

13    Committed to changeouts

87.1    Tons of stove metal recycled

**TOTAL PROGRAM CHANGEOUTS 1095**





# CONCLUSIONS

---

- Community Health - Use of certified stoves will promote emission reduction and will improve respiratory comfort both inside homes and outside.
- Financial incentives are essential in encouraging acceptance and participation in a woodstove changeout program.
- Improved air quality through emission reduction is necessary to create a more attractive environment, which in turn is necessary to attract new growth and economic development.
- Air quality improvement, through pollution prevention, must promote voluntary participation, but must have enforcement tools for support.
- Peer pressure is an important ally in promoting compliance.
- Unwavering political will is critical and required for a successful program.

# THE PROGRAM

---

## Phase 1

- ✓ Objective
- ✓ Targeted Population
- ✓ Program Outline:
  - Application/Eligibility
  - Site Inspection/Stove Assignment
  - Installation
  - Old Stove Disposal
  - Dealer Payment
  - Documentation

# Phase 1

## Woodstove Changeout Program

### Income Guidelines

Number in Household	Annual Income
1	\$17,456.00
2	\$23,419.00
3	\$29,381.00
4	\$35,344.00
5	\$41,306.00
6	\$47,269.00



APPLICATION/ELIGIBILITY  
&  
SITE INSPECTION/  
STOVE ASSIGNMENT



*Lincoln County Woodstove Changeout Program*

*418 Mineral Ave, Libby, MT 59923 ~ (406)293-7781 ext 228*

**PHASE I**  
**APPLICATION FOR LOW INCOME HOUSEHOLDS**

**Please Print Clearly**

**Date** \_\_\_\_\_

**Name** \_\_\_\_\_

**Home Address** \_\_\_\_\_

**Mailing Address** \_\_\_\_\_

**Phone: Home** \_\_\_\_\_ **Work** \_\_\_\_\_ **Other** \_\_\_\_\_

**Proof of Eligibility** \_\_\_\_\_

**What would be the best time to contact you?** \_\_\_\_\_

**Do you** \_\_\_\_\_ **Own** \_\_\_\_\_ **Rent**

**Average wood usage per year** \_\_\_\_\_ **cords**

**Approximate square feet of home** \_\_\_\_\_

\_\_\_\_\_  
**Signature**

***Return completed application to drop box in Lincoln County Annex lobby or mail to above address.***

*For Official Use Only*

**Inspection Date:** \_\_\_\_\_ **Time:** \_\_\_\_\_

**New Construction** \_\_\_\_\_ **Existing** \_\_\_\_\_ **Remodel** \_\_\_\_\_ **Manufactured Home** \_\_\_\_\_

**Framing:** 2x4 2x6 Block Single / Multi Story

**Siding:** Wood Vinyl Stone Stucco Brick Other \_\_\_\_\_

**Floor to box/ceiling** \_\_\_\_\_ **Roof Pitch** \_\_\_\_\_ **Roof Type** \_\_\_\_\_

**Insulation Type:** Batt Blown R Value \_\_\_\_\_ **Window Type** \_\_\_\_\_

**Square footage of heated area** \_\_\_\_\_ **sq. ft.** **Ceiling Fan** \_\_\_\_\_

**Ceiling Pitch** \_\_\_\_\_ **Propane supply to house** \_\_\_\_\_

**Crawl Space** \_\_\_\_\_ **Ease of access** \_\_\_\_\_

**Floor protector size** \_\_\_\_\_ **Corner / parallel**

# INSTALLATION





**OLD STOVE DISPOSAL**



Pacific  
Steel & Recycling

1505

# THE PROGRAM

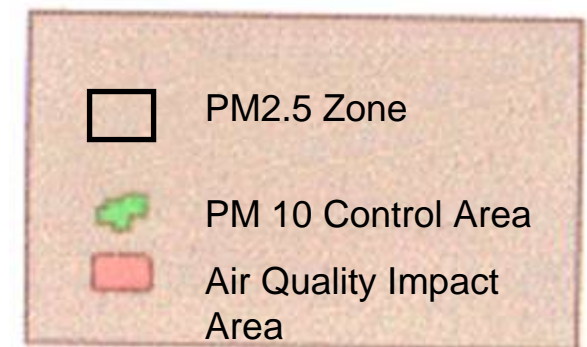
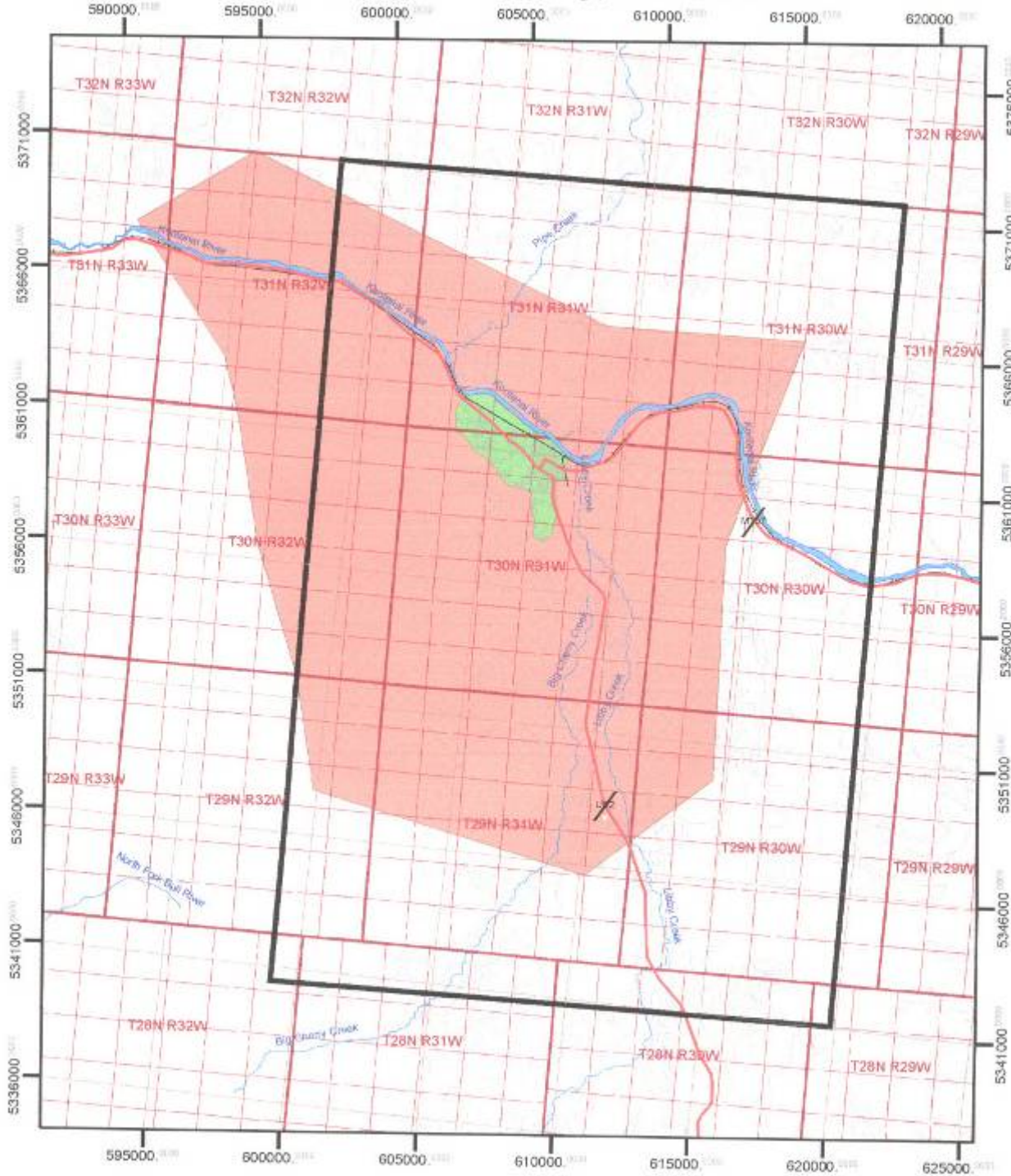
---

## Phase 2

- ✓ Objective
- ✓ Targeted Population
- ✓ Program Outline:
  - Application
  - Site Inspection
  - Voucher Issue
  - Installation
  - Old Stove Disposal
  - Dealer Payment
  - Documentation



# Air Quality Control District





# Stove Fair - Phase 2



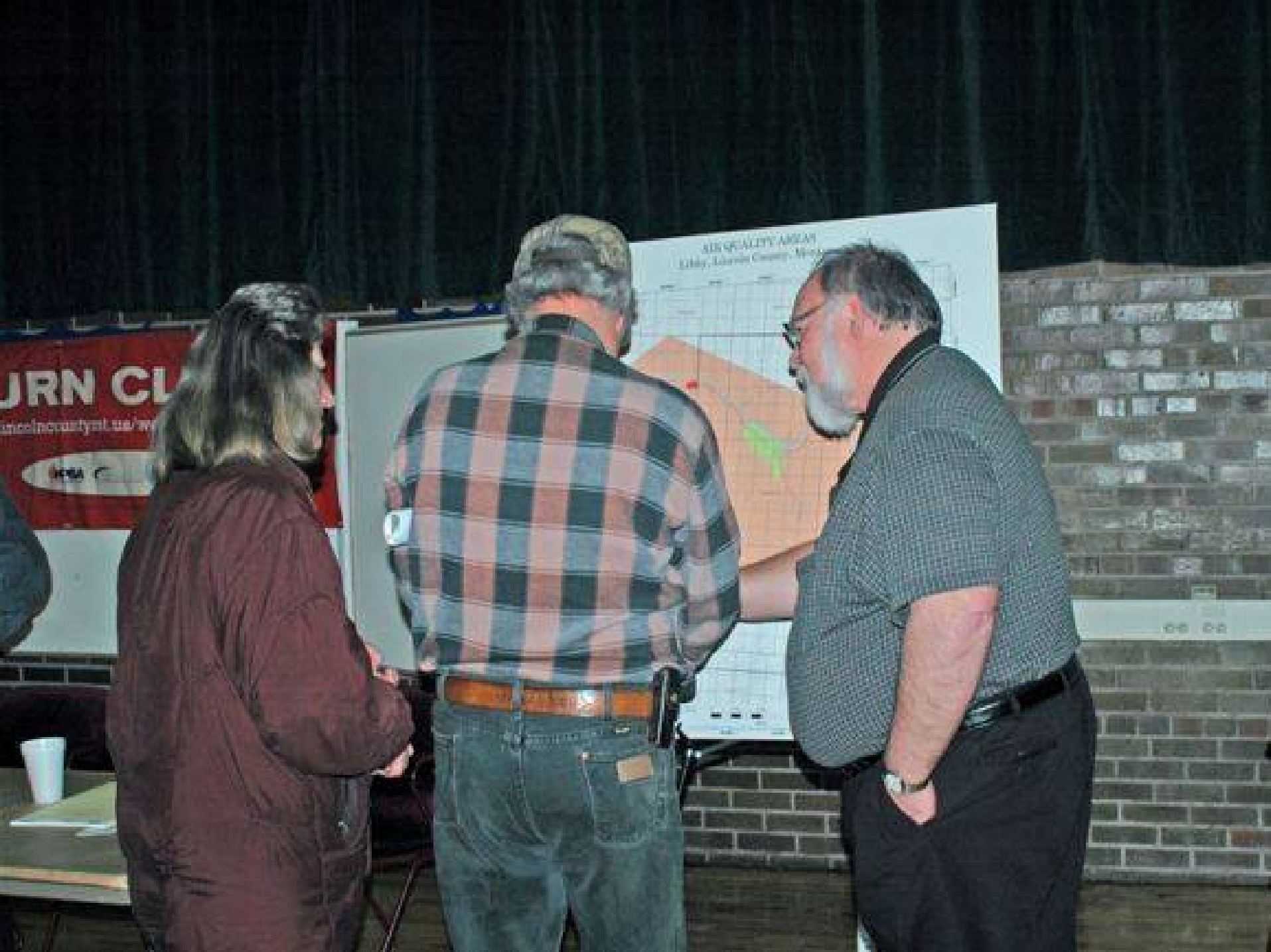


## APPLICATIONS

URN CL

ince/ncrustynt.us/w

AIR QUALITY AERIAL  
Elkhart, Adams County, Missouri





*Lincoln County Woodstove Changeout Program*

*418 Mineral Ave, Libby, MT 59923 ~ (406)293-7781 ext 228*

**PHASE II  
VOUCHER APPLICATION**

*Please Print Clearly*

Date \_\_\_\_\_

Name \_\_\_\_\_

Home Address \_\_\_\_\_

Mailing Address \_\_\_\_\_

Phone: Home \_\_\_\_\_ Work \_\_\_\_\_ Other \_\_\_\_\_

What would be the best time to contact you? \_\_\_\_\_

Do you \_\_\_\_\_ Own \_\_\_\_\_ Rent \_\_\_\_\_

Average wood usage per year \_\_\_\_\_ cords

Approximate square feet of home \_\_\_\_\_

\_\_\_\_\_  
Signature

***Return completed application to drop box in Lincoln County Annex lobby or mail to above address.***

*For Official Use Only*

Inspection Date: \_\_\_\_\_ Time: \_\_\_\_\_

Chimney:    Masonry    Interior / Exterior    Condition: \_\_\_\_\_

                 Class A    Interior / Exterior    Condition: \_\_\_\_\_

Existing appliance:    Fireplace    Woodstove    Furnace    Insert

Comments: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_









## VOUCHER

### *Lincoln County Woodstove Changeout Program*

418 Mineral Ave, Libby, MT 59923 ~ (406)293-7781 ext 228

Issue Date: February 14, 2006

This certificate is issued to: John Sample  
123 Made Up Blvd  
Libby, MT

This certificate is non-transferrable.

- X This certificate is redeemable for \$700.00 toward the purchase of an approved heating appliance (wood, gas, pellet, oil or electric of at least \$700.00 retail value) from a participating authorized heating appliance dealer. (See below)
- X This certificate is redeemable for \$350.00 toward the installation of an approved heating appliance by an NFI certified installer. If the cost of installation is less than \$350.00, the difference will be applied toward the appliance purchase.
- X This certificate is redeemable for the \$100.00 Early Application Incentive to be applied toward the purchase of an approved heating appliance.

#### Participating authorized heating appliance dealers:

- Alpine Heating, LLC - Libby
- Amerigas Propane - Libby
- Anderson Masonry - Kalispell (Woodstoves Only)
- City Service Valcon - Libby
- Energy Partners - Thompson Falls
- Glass & Home Innovations - Libby
- Hoodoo Mountain Inc. - Libby
- Larson Lumber - Troy
- Moore Oil - Libby
- Mountain Spa & Stove - Sandpoint, ID
- Northern Energy - Libby
- Olson Heating Service - Libby
- Rick's Rental/Schrader Stoves - Libby
- Roeder Heating - Troy
- Ziegler Building Center - Kalispell (Woodstoves Only)

#### Independent certified installer:

- Tom Kurlle - Libby
- Gary Huntsberger - Libby

Authorized by: \_\_\_\_\_

Activation Date: February 24, 2006

Expiration Date: November 1, 2006

Verification Code: WSCII009

Voucher values are:

1.	Approved heating appliance (certified wood, pellet, gas, oil, electric) of at least \$700 retail value	\$700.00
2.	Installation of approved heating appliance by certified dealer or independent installer	\$350.00
3.	Removal of stove and decommissioning of wood burning capability	\$200.00
4.	Early application incentive	\$100.00
5.	Furnace replacement or upgrade with pellet, oil, certified wood, or gas furnace	\$1400.00





**OLD STOVE DISPOSAL**





# DEALER PAYMENT & DOCUMENTATION

